Distributed by:

JAMECO® ELECTRONICS

**www.Jameco.com ✦ 1-800-831-4242**

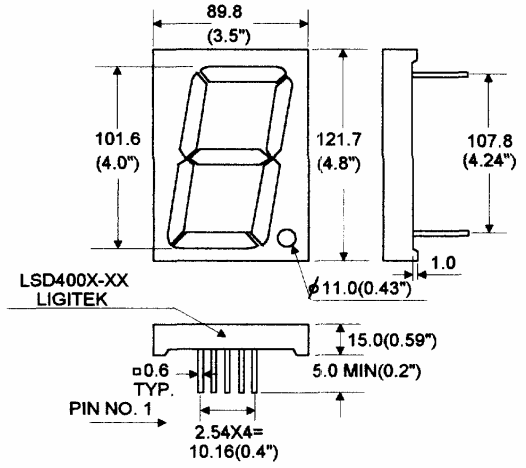
The content and copyrights of the attached material are the property of its owner.

Jameco Part Number 105591

## LIGITEK

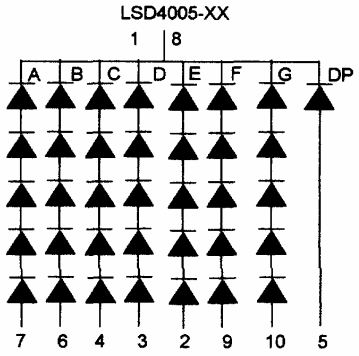
**SINGLE DIGIT LED DISPLAY (4.0 Inch)** **LSD4005X/6X** series 

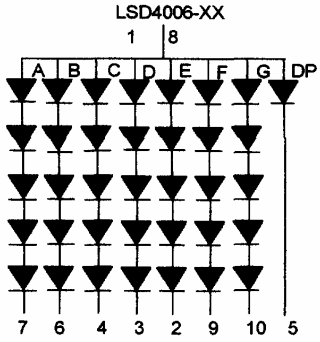
PACKAGE DIMENSION




NOTE: All Dimension Are In Millimeters And (Inch)
Tolerance Is ±0.25(0.01") Unless Otherwise Noted

INTERNAL CIRCUIT DIAGRAM




- **Connection To Electrical Schematic**

***Electrical Connection***

| PIN NO. | LSD4005X-XX | PIN NO. | LSD4006X-XX |
|---|---|---|---|
| 1 | Common Cathode | 1 | Common Anode |
| 2 | Anode E | 2 | Cathode E |
| 3 | Anode D | 3 | Cathode D |
| 4 | Anode C | 4 | Cathode C |
| 5 | Anode DP | 5 | Cathode DP |
| 6 | Anode B | 6 | Cathode B |
| 7 | Anode A | 7 | Cathode A |
| 8 | Common Cathode | 8 | Common Anode |
| 9 | Anode F | 9 | Cathode F |
| 10 | Andoe G | 10 | Cathode G |

文件編號：QW0905-S4005/6X-XX 版本：A 生效日期：Jun . 8 . 1996

## • Part Selection And Application Information (Ratings At 25°C Ambient)

| PART NO | CHIP | | common cathode or anode | λP (nm) | Δλ (nm) | Electrical | | | | | IV-M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Vf(v) | | | Iv(mcd) | | |
| | material | emitted | | | | Min | Typ. | Max | Min | Typ. | |
| LSD40055-XX | GaAlAs | Red | Common Cathode | 660 | 20 | 1.5 | 1.7 | 2.4 | 14 | 23 | 2:1 |
| LSD40051-XX | GaP | Red | | 697 | 90 | 1.7 | 2.1 | 2.8 | 5.4 | 9.0 | 2:1 |
| LSD40052-XX | GaP | Green | | 565 | 30 | 1.7 | 2.1 | 2.8 | 11 | 18 | 2:1 |
| LSD40053-XX | GaAsP/GaP | Yellow | | 585 | 35 | 1.7 | 2.0 | 2.8 | 10 | 17 | 2:1 |
| LSD40054-XX | GaAsP/GaP | Orange | | 635 | 45 | 1.7 | 2.0 | 2.8 | 11 | 18 | 2:1 |
| LSD40065-XX | GaAlAs | Red | Common Anode | 660 | 20 | 1.5 | 1.7 | 2.4 | 14 | 23 | 2:1 |
| LSD40061-XX | GaP | Red | | 697 | 90 | 1.7 | 2.1 | 2.8 | 5.4 | 9.0 | 2:1 |
| LSD40062-XX | GaP | Green | | 565 | 30 | 1.7 | 2.1 | 2.8 | 11 | 18 | 2:1 |
| LSD40063-XX | GaAsP/GaP | Yellow | | 585 | 35 | 1.7 | 2.0 | 2.8 | 10 | 17 | 2:1 |
| LSD40064-XX | GaAsP/GaP | Orange | | 635 | 45 | 1.7 | 2.0 | 2.8 | 11 | 18 | 2:1 |

## • Absolute Maximum Rating (Ta=25°C)

| Parameter | Red | | | Green | | Yellow | | Orange | | Unit | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Forward Current Per Chip | SR | | H | G | | Y | | E | | | |
| | 40 | | 15 | 30 | | 20 | | 30 | | mA | |
| Peak Current Per Chip (Duty 1/10, 0.1MS Pulse Width) | 200 | | 60 | 120 | | 80 | | 120 | | mA | |
| Power Dissipation Per Chip | 110 | | 45 | 100 | | 85 | | 100 | | mW | |
| Derating Linear From 25°C Per Chip | 0.45 | | 0.25 | 0.45 | | 0.45 | | 0.45 | | mA/°C | |
| Reverse Current Per Any Chip | 10 | | | 10 | | 10 | | 10 | | μA | |
| Operating Temperature | -25°C TO +85°C | | | | | | | | | | |
| Storage Temperature | -25°C TO +85°C | | | | | | | | | | |
| Solder Temperature 1/16 Inch Below Seating Plane For 3 Seconds At 260°C | | | | | | | | | | | |

## • Test Condition For Each Parameter

| Parameter | Symbol | Unit | Test Condition |
|---|---|---|---|
| Forward Voltage Per Chip | Vf | volt | If=20mA |
| Luminous Intensity Per Chip | Iv | mcd | If=10mA |
| Peak Emission Wavelength | λP | nm | If=20mA |
| Spectral Line Half-Width | Δλ | nm | If=20mA |
| Reverse Current Any Chip | Ir | μA | Vr=5V |
| Luminous Intensity Matching Ratio | IV-M | | |